Explicit and Implicit Stigma of Mental Illness as Predictors of Recovery Attitudes of Assertive Community Treatment Practitioners

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Explicit and Implicit Stigma of Mental Illness as Predictors of the Recovery Attitudes of Assertive Community Treatment Practitioners

Background: While explicit negative stereotypes of mental illness are well established as barriers to recovery, implicit attitudes also may negatively impact outcomes. The current study is unique in its focus on both explicit and implicit stigma as predictors of recovery attitudes of mental health practitioners. Method: Assertive Community Treatment practitioners (n = 154) from 55 teams completed online measures of stigma, recovery attitudes, and an Implicit Association Test (IAT). Results: Three of four explicit stigma variables (perceptions of blameworthiness, helplessness, and dangerousness) and all three implicit stigma variables were associated with lower recovery attitudes. In a multivariate, hierarchical model, however, implicit stigma did not explain additional variance in recovery attitudes. In the overall model, perceptions of dangerousness and implicitly associating mental illness with "bad" were significant individual predictors of lower recovery attitudes. Limitations: The relative nature of the IAT in comparing mental illness with physical illness and cross-sectional data limit study findings. Conclusions: The current study demonstrates a need for interventions to lower explicit stigma, particularly perceptions of dangerousness, to increase mental health providers' expectations for recovery. The extent to which implicit and explicit stigma differentially predict outcomes, including recovery attitudes, needs further research.

Recovery has been defined in various ways; two common perspectives are internal conditions (i.e. hope, healing, empowerment, connection) experienced by individuals and external conditions that facilitate recovery (1) such as recovery-oriented services. While recovery cannot be forced into rehabilitation programs, environments can be created that nurture the recovery process (2). Potential facilitators of a recovery-supporting environment include both explicit and implicit staff attitudes toward mental illness. Because the specific aims of the recovery model include reducing stigma and the effects of stigma on treatment engagement and outcomes, it is particularly important to study explicit and implicit stigma as predictors of treatment provider recovery attitudes. The purpose of the current project is to examine the relationships between explicit and implicit biases and the recovery attitudes of Assertive Community Treatment (ACT) practitioners.

The examination of recovery facilitators within ACT is particularly salient. Although ACT is an intensive case management model with demonstrated effectiveness in reducing hospitalization and stabilizing housing for persons with severe mental illness (e.g., 3-4), ACT has been criticized as embodying stigmatizing, disempowering attitudes toward consumers (5). Differences in staff attitudes have been noted between ACT teams identified as high versus low recovery-orientation (6). Specifically, the ACT team with a strong recovery orientation displayed trust in consumers, positive expectations for consumers, and respect for consumers, while the low recovery-oriented team members were more paternalistic, disrespectful of consumers and each other, and focused on consumers' limitations, rather than strengths. Additional research is needed to examine possible predictors of a recovery-based environment.

Treatment providers' attitudes about clients can have a powerful impact on recovery (7). One specific attitude that may underlie non-recovery based ACT is stigma, which is antithetical

to belief in a person's ability to recover. The stigma surrounding mental illness can act as a pervasive barrier to opportunities that define a good quality of life (e.g., desirable jobs, safe housing, satisfactory health care, diverse social interactions) and as an impediment to people getting necessary help (8-9). Stigma also tends to be disempowering; individuals may lose hope or not even realize that recovery from mental illness is possible. Most mental illness stigma research has focused on the detrimental effects of explicit negative expectations and attitudes, including decreased employment, housing, relationship, and treatment opportunities. However, there is an increasing recognition that explicit measures may underestimate true levels of stigma (10). In contrast, implicit attitudes may be more sensitive to detecting beliefs and associations that persons would not explicitly endorse or would prefer not to reveal.

Explicit Stigma

Commonly held stereotypes about people with mental illness include: they are incapable of independent living or real work (incompetence) and because of weak character, they are responsible for the onset and continuation of their disorders (blame). Attitudes of blame and incompetence have been consistently identified in surveys of the general public (11-13). Unfortunately, research has shown that professionals from mental health disciplines also subscribe to similar stereotypes (e.g., 14-15). For example, mental health professionals have been perceived by as insensitive and having low expectations (16). Further, stigma may exist among mental health professionals as benevolent paternalism (17), which may appear helpful, but is condescending and implies incompetence and helplessness.

Another commonly held stereotype about persons with mental illnesses is that they are dangerous (13). For example, perceptions of dangerousness have been found to lead to discriminatory behavior among college students (18). Corrigan and colleagues (19) tested a

danger appraisal model among college students to better understand the relationship between perceived dangerousness and discrimination. They found that perceived dangerousness increased attitudes of fear, which then predicted support for coercive treatment. Unfortunately, a review found that many mental health professionals share the public belief that people with mental illness are dangerous (20). Although dangerousness has been linked to fear in college students, the extent to which perceived dangerousness predicts mental health professionals' recovery-oriented attitudes has yet to be examined.

Implicit Stigma

Complex social behavior, including stigma, that appears to be enacted mindfully may instead be performed without conscious attention (21). Given that social behavior often operates in an implicit manner (22), outside of conscious awareness, and that explicit measures of mental illness stigma are susceptible to social desirability bias (23), the current study addresses a need for further research by assessing implicit stigma of mental illness.

Studies have demonstrated implicit stigma of mental illness across a range of populations, including the general population (24), medical and psychology students (25), and those with mental illness (24, 26). Importantly, implicit and explicit stigma of mental illness may differentially predict clinical decision making, and ultimately, consumer outcomes. Among those with mental health training, explicit stigma was related to more negative estimates of patient prognoses, whereas implicit stigma was related to a tendency to over-diagnose (27). In a prior report using the current sample, implicit, but not explicit, stigma predicted the endorsement of more controlling interventions (28). Other studies have shown that among those with mental illness, lower levels of implicit and explicit self-stigma predicted higher quality of life (26).

In addition to being different from explicit stigma, implicit stigma may be more common. Even in the absence of explicit stigma, some people have exhibited implicit negative beliefs about persons with mental illness (24). Moreover, these negative beliefs were pervasive; people with mental illness were not exempt from sharing the same common negative beliefs as the general public and internalized these beliefs toward themselves (24). Thus, both explicit and implicit stigma of mental illness have been documented in the general public and among mental health professionals.

Understanding the extent to which mental health professionals' attitudes support recovery is necessary to provide consumers with optimal support. Further, focusing on predictors of ACT professionals' recovery attitudes is of particular importance given that ACT is an intervention that is often considered the gold standard practice for those with the most severe mental illness, yet has been criticized for paternalistic and coercive attitudes. Accordingly, the purpose of the current study is to examine both explicit (including perceptions of dangerousness) and implicit bias as predictors of recovery attitudes among ACT practitioners. Based on prior research, we hypothesized that practitioners who endorsed more explicit and implicit sigma would have less supportive attitudes towards recovery. Given the potential for under-reporting explicit stigma, we also tested whether implicit stigma would incrementally predict recovery attitudes after accounting for explicit stigma and other background variables.

Method

Participants

Current staff members, team leaders, and program directors of ACT teams employed at least one quarter of full time were recruited. The study sample included 154 participants from 55 ACT teams in the United States. Participants were initially recruited from teams in a single state, with 67 ACT staff responding from an estimated pool of 320 staff (20.9% response rate). The

low response rate may have been affected by funding cutbacks that were occurring within the state at the time data collection. To increase participation, recruitment was expanded to other states, resulting in an additional 59 ACT staff from eight other states and 28 participants who did not disclose their location.

One hundred twenty participants disclosed their roles: 86 (71.7%) were staff members, 27 (22.5%) were team leaders, and 7 (5.8%) were program directors. Team leaders and program directors were grouped together for later analyses. Participants' averaged 11.0 years (SD = 8.9) in the mental health field and 3.2 years (SD = 2.4) in their current position. There were no significant differences in descriptive data between participants based on location. See Table 1 for additional descriptive data.

Staff and program directors were compensated $10 and team leaders $20 for their participation, with compensation differences based on differences in time commitment (team leaders were asked to rate the job performance of each staff on their team). See article by authors (28) for a more detailed participant description.

Measures

Recovery Attitudes. The original 16-item self-report Consumer Optimism Scale (29) was administered. Scoring was based on a recent Rasch analysis that identified 10 items for retention in the final Provider Expectations for Recovery Scale (30). This 10-item measure assesses staff's expectations regarding consumers' ability to do things such as function well in the community and have satisfying personal relationships. Each item was rated using a Likert scale (1 = none, 5 = almost all). The scale has demonstrated good reliability ($\alpha = 0.90$) and adequate convergent validity with education level and employment setting (30). In the current study, Cronbach's α was 0.91.

Explicit Stigma. Consistent with previous research (24, 27, 31), a series of single-item explicit stigma measures were included. Participants were asked to rate their attitudes toward "persons with mental illness" on three 7-point semantic differential scales (e.g., 1 = bad, 7 = good). Ratings were made for bad/good, blameworthy/innocent and helpless/competent biases. Items were reverse-scored so that higher scores indicated more negative views. Participants were instructed to mark the middle of the range if they considered both anchoring adjectives to be irrelevant to the category.

Perceived dangerousness also was assessed as an indicator of explicit bias. Participants completed the eight-item Perceived Dangerousness Scale (32). One change was made to the scale; the term "mental patients" was replaced with "persons with mental illness" as this terminology is more consistent with ACT staff usage. Participants rated each item using a six point scale (0 = strongly agree, 5 = strongly disagree). Six items were reverse-scored, so that higher scores indicated greater levels of perceived dangerousness. Link and colleagues (32) reported Cronbach's α for the scale of 0.85. In this study, Cronbach's α was 0.64.

Implicit Stigma. A web-based, computerized version of the Implicit Association Test (IAT; 31) was used to assess automatic associations to mental illness. The IAT was developed, administered, and managed using Inquisit Desktop Edition. The IAT has been widely used to assess implicit attitudes and has adequate psychometric properties (33). We used the stimuli from a previously developed IAT (24) comparing a stigmatized (mental illness) and non-stigmatized (physical illness) group. Participants completed three different IAT tasks. All tasks paired "physical illness" and "mental illness" and were rated using one of three stimulus sets: 1) "bad" versus "good", 2) "blameworthy" versus "innocent", or 3) "helpless" versus "competent".

Within tasks, participants were presented with both compatible (mental illness + bad) and incompatible (mental illness + good) trials. See Appendix 1 for all IAT categories.

The order in which each IAT task (good vs. bad; helpless vs. competent; blameworthy vs. innocent) was completed varied by participant, as did whether they were first presented with compatible or incompatible trials. In each IAT task, there were two critical trial blocks: one where the target and descriptor categories reflected negative mental illness associations and one where the target and descriptor categories reflected negative physical illness associations. The outcome measure was response time, with shorter latencies indicating stronger automatic associations. The specific effects that were considered were faster responding when mental illness was associated with bad, blameworthy, and helpless labels. Following the IAT scoring algorithm developed by Greenwald and colleagues (34), difference scores (D scores; calculated by dividing the difference between reaction time averages for the mental illness and physical illness test blocks by the standard deviation of all the latencies in the two test blocks) were calculated for each association such that positive scores indicated more implicit bias against mental illness.

Descriptive Data. Participant demographic information was obtained using a brief questionnaire and included age, gender, race/ethnicity, marital status, and highest level of education completed. Other work-related information collected included current discipline, length of time in current position, and length of time in the mental health field. Participants were asked to indicate their position on the team (program director, team leader, or staff member), the name of their team (in order to match team leader and staff data), and the location (state) of their team.

Procedures

Team leaders and their supervisors at each of the 30 ACT teams in [US state] were first contacted by email. Due to a low response rate, recruitment was expanded by emailing ACT programs in other states. Each email contained a brief introduction, study description, web link, and recruitment letter with more detailed information. All surveys, including the IAT, could be accessed by the emailed web link. Participants were required to provide informed consent prior to accessing study measures. The university Institutional Review Board approved the study procedures, which conformed to the provisions of the Declaration of Helsinki.

Data Analysis

First, descriptive statistics and correlations between recovery attitudes, descriptive data, and explicit and implicit stigma measures were calculated. To examine multivariate predictors of recovery attitudes, a hierarchical, block entry multiple regression was performed using SPSS Version 19. We were interested in the incremental validity of stigma, beyond background variables, to predict recovery attitudes; thus, we entered descriptive variables simultaneously in the first step: gender, education, position (staff vs. team leaders/directors), and amount of time spent in recovery oriented continuing education (in hours). Similarly, we were interested in the incremental validity of implicit stigma, beyond explicit stigma, to predict recovery attitudes, so we simultaneously entered explicit stigma in the second step: three semantic differential items (Bad-Good, Blameworthy-Innocent, and Helpless-Competent) and Perceived Dangerousness. We entered implicit stigma measures simultaneously in the third step: mental illness + bad, mental illness + blameworthy, and mental illness + helpless IAT tasks. This approach is consistent with recommendations to use hierarchical models to explain how variables affect an outcome (35).

Results

As shown in Table 2, positive recovery attitudes were significantly and positively correlated with education ($r = 0.25$, $p < 0.01$) and hours spent in recovery-oriented continuing education ($r = 0.20$, $p < 0.05$). More negative recovery attitudes were significantly correlated with the staff role (compared with the team leader/program director role) on the team ($r = -0.24$, $p < 0.01$), explicit attitudes that those with mental illness are blameworthy ($r = -0.19$, $p < 0.05$) and helpless ($r = -.33$, $p < 0.01$), higher scores on Perceived Dangerousness ($r = -0.46$, $p < 0.01$), and implicit measures indexing faster response times when mental illness was paired with bad ($r = -.33$, $p < 0.01$), blameworthy ($r = -.24$, $p < 0.05$), and helpless ($r = -.21$, $p < 0.05$) on IAT tasks. These were small to medium effect sizes according to Cohen's guidelines (36).

The demographic variables were significant predictors of recovery attitudes, $F(4,88) = 2.65$, $p = 0.04$, and accounted for approximately 11% of the variance in recovery attitudes. The addition of the explicit measures in the second step significantly increased the explained variance, $\Delta R^2 = 0.16$, $p < 0.01$ (see Table 3); however, the addition of the implicit variables in the third step did not significantly explain additional variance, $\Delta R^2 = 0.04$, $p = 0.18$. When each of the individual predictor variables in the regression were examined individually as predictors of recovery attitudes, staff role ($\beta = -0.23$, $p = 0.05$), Perceived Dangerousness ($\beta = -0.31$, $p = 0.01$) and the mental illness + bad IAT task ($\beta = -0.23$, $p = 0.04$) were statistically significant. All other control and predictor variables failed to reach statistical significance.

Discussion

The purpose of the current project was to examine the relationship between explicit stigma (including perceptions of dangerousness), implicit stigma, and recovery attitudes in ACT practitioners. In univariate tests, three of the four explicit measures and all of the implicit measures of stigma were associated with lower recovery attitudes. ACT practitioners who

endorsed explicit beliefs that people with mental illness are blameworthy, helpless, and/or dangerous, were less likely to endorse beliefs that people with mental illness can recover. Similarly, ACT practitioners holding implicit biases, that people with mental illness (compared to physical illness) are bad, blameworthy, and/or helpless, were also less likely to endorse recovery attitudes. In multivariate models however, only two stigma measures were predictors after accounting for descriptive variables: explicit perceived dangerousness and implicit associations of people with mental illness as being relatively "bad". Contrary to hypotheses, implicit attitudes did not provide additional predictive power after accounting for background variables and explicit stigma. Below we discuss each of these main findings.

The consistency of univariate correlations suggests that both explicit and implicit stigmatizing attitudes may have important implications for ACT practitioners and consumers. This is consistent with prior findings that explicit and implicit stigma were respectively associated with more negative patient prognoses and over-diagnosing (27). Recovery-oriented attitudes may be particularly difficult for ACT staff to maintain, given that admission criteria ensure that many consumers will have difficulty engaging in treatment. ACT teams often target consumers with the most persistent and extreme symptoms of mental illness. Further, disability is frequently demonstrated through frequent use of psychiatric hospitals, substance abuse centers, jails, shelters, and other facilities. Some consumers are even specifically assigned to ACT as part of an outpatient commitment order or because they had negative experiences with other mental health services (37). Although we did not compare ACT practitioners to other service providers, research has shown that staff serving clients in state hospitals have lower expectations for recovery (30). It may be that a service population with high clinical need reinforces negative beliefs.

Demographic and work-related variables together accounted for 11% of the variance in recovery attitudes. However, the only significant individual predictor was staff role; specifically, ACT staff had lower recovery-oriented attitudes than team leaders and program directors. It could be that greater direct contact with a challenging population increases negative beliefs; however, this finding is inconsistent with a recent study that found no significant differences in recovery attitudes between ACT coordinators and staff (38). This inconsistency may be due to measurement differences, specifically assessing recovery-oriented practices (38) instead of expectations for recovery.

We found that perceiving persons with mental illness as dangerous predicted lower expectations for recovery, which expands findings by Corrigan and colleagues (18, 19) showing relationships between perceptions of dangerousness, fear, and discriminatory responses. That is, lower recovery-oriented attitudes of ACT participants may act as a mediator between perceptions of dangerousness and behavioral responses, such as endorsing coercive treatments. Research is needed to further examine this potential relationship.

Unexpectedly, the three implicit stigma measures when treated in aggregate did not add significantly to the model predicting recovery attitudes. This is inconsistent with prior findings (28) that implicit, but not explicit, stigma towards persons with mental illness predicted more controlling interventions. Although collectively implicit attitudes were not predictive, the mental illness + bad IAT task was a significant and negative individual predictor of recovery attitudes. In other words, faster responding times when mental illness was paired with “bad” versus “good” predicted lower recovery-oriented attitudes. The good/bad stimulus is thought to assess a general evaluation of negative attitudes (24). That this general evaluation predicted recovery attitudes,

while more specific implicit biases (blameworthiness and helplessness) did not, deserves further attention to explore the differential effects of these biases.

Findings indicate a need to work with mental health practitioners to reduce explicit beliefs that persons with mental illness are dangerous and general negative implicit evaluations. While prior research has found contact with people with mental illness reduces attitudes related to dangerousness (18), additional work is needed to determine what interventions could change the attitudes of frontline ACT staff. Allport (39) noted that status equality, common goals, and institutional support are needed to enhance the benefits of contact with a stigmatized group; this may be in contrast with possible hierarchical divisions between ACT staff and consumers and potentially different treatment goals, perhaps in part due to the ACT target population (e.g., with difficulty engaging in treatment, outpatient commitment, multiple comorbidities). ACT staff may be in particular need of reminders that recovery from mental illness is possible, perhaps through interventions like the In Our Own Voice program by the National Alliance on Mental Illness, or by increasing the number of peer providers on the team. Further, given that responses assessed by indirect measures such as the IAT may be more predictive of spontaneous rather than deliberate behaviors (40), it may be useful for ACT providers to explicitly discuss their beliefs about mental illness and expectations for recovery, for example in supervision or during team meetings, in an effort to make recovery attitudes more of a deliberate process.

Limitations

The study had several limitations. First, our measure of implicit stigma is limited to understanding relative beliefs; that is, we could only capture implicit bias towards mental illness relative to bias toward physical illness. However, even relative IATs have been shown to predict non-relative outcomes, such as control mechanisms (28) and diagnoses (27). Second, the cross-

sectional data limits our ability to identify possible relationship directions; a longitudinal study examining predictors of recovery attitudes over time would be an ideal next step. Finally, there were sampling limitations, including the low initial response rate.

Conclusion

Recovery-oriented treatment, including ACT (37), has been shown in the past to be beneficial. The current study demonstrates a need for interventions to lower explicit stigma, particularly perceptions of dangerousness, in an effort to increase mental health providers' expectations for recovery. Implicit attitudes about the relative nature of persons with mental illness, specifically as being more "bad" than "good," may also need to be targeted in interventions to reduce stigma. ACT providers may need to see positive examples of recovery and discuss their expectations for recovery in a more deliberate manner. Further research is needed to examine the differential effects of implicit and explicit stigma in predicting recovery attitudes.

Author note:

Author 1 contributed to study conception/design, data analysis/interpretation, and manuscript drafting. Author 2 contributed to data interpretation and manuscript drafting. Authors 3 and 4 contributed to conception/design, data interpretation, and critical manuscript revision. All authors provided final manuscript approval prior to submission.

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Table 1

Participant Descriptive Data

	M	SD
Age	41.71	11.18
Years in Position	3.19	2.36
Years in Mental Health Field	11.04	8.90

	N	%		N	%
Gender			**State**		
Female	93	77.50	[US state]	67	53.17
Male	27	22.50	Non-[US state]	59	46.83
Race			**Marital Status**		
Caucasian	105	87.50	Single, Never Married	29	24.79
Minority	15	12.50	Married or Living as Married	70	59.83
			Divorced, Widowed, or Separated	18	15.38
Education			**Discipline**		
High School/GED	4	3.33	Social Work	59	49.17
Some College	5	4.17	Sociology	4	3.33
Associate's Degree	6	5.00	Nursing	7	5.83
Bachelor's Degree	44	36.67	Psychology	25	20.83
Master's Degree	60	50.00	Psychiatry	3	2.50
Doctoral Degree	1	0.83	Education	1	0.83
			Other	21	17.50
Position					
Staff	86	71.67			
Team Leader	27	22.50			
Program Director	7	5.83			

Table 2

Descriptive Statistics and Correlations between Explicit Measures, Implicit Measures, and Recovery Attitudes

Measure **Mean (SD)**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**
Explicit Measures								
1. Semantic differential: MI[1] bad 2.35 (1.41)	-							
2. Semantic differential: MI blameworthy 2.79 (1.33)	0.27**	-						
3. Semantic differential: MI helpless 2.86 (1.33)	0.34**	0.36**	-					
4. Perceived Dangerousness 1.18 (0.68)	0.09	0.13	0.24**	-				
Implicit Measures								
5. IAT MI: bad (vs. good) -0.20 (0.42)	0.17	0.10	0.23*	0.21*	-			
6. IAT MI: blameworthy (vs. innocent) -0.07 (0.37)	0.04	0.15	0.29**	0.35**	0.29**	-		
7. IAT MI: helpless (vs. competent) -0.09 (0.40)	-0.03	0.06	0.17	0.17	0.42**	0.19*	-	
Recovery Attitudes								
8. Providers Expectations for Recovery 3.23 (0.52)	-0.05	-0.19*	-0.33**	-0.48**	-0.35**	-0.28**	-0.21*	-

1. MI is abbreviation for mental illness.

* $p < 0.05$. ** $p < 0.01$.

Table 3

Hierarchical Regression Analysis with Descriptive, Explicit, and Implicit Variables as Predictors of Recovery Attitudes

	β	**R^2**	**ΔR^2**	**ΔR^2*p***	***df***	**F**	**F-*test p***
Step 1		0.11	0.11	0.04	4, 88	2.65	0.04
Gender	0.05						0.66
Education	0.07						0.54
Position	-0.23						0.05
Recovery Oriented Continuing Education Hours	0.15						0.17
Step 2		0.27	0.16	< 0.01	8, 84	3.81	< 0.01
Bad-Good Semantic Item	0.07						0.54
Blameworthy-Innocent Semantic Item	-0.13						0.24
Helpless-Competent Semantic Item	-0.17						0.13
Perceived Dangerousness	-0.31						0.01
Step 3		0.31	0.04	0.18	11, 81	3.29	< 0.01
Mental Illness + Bad IAT	-0.23						0.04
Mental Illness + Blameworthy IAT	-0.01						0.90
Mental Illness + Helpless IAT	0.07						0.54

Appendix 1

Mental Illness Stigma IAT Categories and Stimuli

Category Label	**Stimuli to be Classified**			
Mental Illness	Depression	Schizophrenia	Bipolar Disorder	Obsessive-Compulsive Disorder
Physical Illness	Diabetes	Appendicitis	Cerebral Palsy	Multiple Sclerosis
Good	Excellent	Joyful	Wonderful	Great
Bad	Horrible	Nasty	Terrible	Awful
Innocent	Faultless	Virtuous	Innocent	Guiltless
Blameworthy	Culpable	At Fault	Guilty	Blameworthy
Helpless	Incompetent	Helpless	Incapable	Unable
Competent	Capable	Qualified	Competent	Able